

Substitute for form 1449/PTO

**FOURTH SUPPLEMENTAL
INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet	1	of	1
-------	---	----	---

Complete if Known

Application Number	10/766,711
Filing Date	January 27, 2004
First Named Inventor	W. James JACKSON
Art Unit	1645
Examiner Name	BASKAR, Padmavathi
Attorney Docket Number	2479.0040003/EJH/C-K

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ Number ² Kind Code ³ (if known)				
	FP3	WO 99/28475 A2	06/10/1999	Genset		
	FP4	WO 99/31236 A2	06/24/1999	Genset		
	FP5	WO 00/34483 A2	06/15/2000	Corixa Corporation		
	FP6	WO 01/40474 A2	06/07/2001	Corixa Corporation		
	FP7	WO 02/08267 A2	01/31/2002	Corixa Corporation		

879230 1.DOC

Examiner Signature		Date Considered	
-----------------------	--	--------------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Substitute for form 1449/PTO				Complete if Known	
FOURTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Application Number	10/766,711
				Filing Date	January 27, 2004
				First Named Inventor	JACKSON, W. James
				Art Unit	1645
				Examiner Name	BASKAR, Padmavathi
Sheet	1	of	4	Attorney Docket Number	2479.0040003/EJH/C-K

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
	NPL37	BATTEIGER, B.E., <i>et al.</i> , "Partial protection against genital reinfection by immunization of guinea-pigs with isolated outer-membrane proteins of the chlamydial agent of guinea-pig inclusion conjunctivitis," <i>J. Gen. Microbiol.</i> 139:2965-2972, SGM (1993)	
	NPL38	BORK, P., "Powers and pitfalls in sequence analysis: the 70% hurdle," <i>Genome Res.</i> 10:398-400, Cold Spring Harbor Laboratory Press (April 2000)	
	NPL39	BORK, P., and BAIROCH, A., "Go hunting in sequence databases but watch out for the traps," <i>Trends Genet.</i> 12:425-427, Elsevier Trends Journals (October 1996)	
	NPL40	BRENNER, S.E., "Errors in genome annotation," <i>Trends Genet.</i> 15:132-133, Elsevier Trends Journals (April 1999)	
	NPL41	BURGESS, W.H., <i>et al.</i> , "Possible Dissociation of the Heparin-binding and Mitogenic Activities of Heparin-binding (Acidic Fibroblast) Growth Factor-1 from Its Receptor-binding Activities by Site-directed Mutagenesis of a Single Lysine Residue," <i>J. Cell Biol.</i> 111:2129-2138, The Rockefeller University Press (1990)	
	NPL42	BUSH, R.M., and EVERETT, K.D.E., "Molecular evolution of the <i>Chlamydiaceae</i> ," <i>Int. J. System. Evol. Microbiol.</i> 51:203-220, IUMS (January 2001)	
	NPL43	CLYNE, J.M., <i>et al.</i> , "A rapid chemiluminescent DNA hybridization assay for the detection of <i>Chlamydia trachomatis</i> ," <i>J. Biolumin. Chemilumin.</i> 4:357-366, Wiley & Sons (1989)	
	NPL44	DENAMUR, E., <i>et al.</i> , "Restriction pattern of the major outer-membrane protein gene provides evidence for a homogeneous invasive group among ruminant isolates of <i>Chlamydia psittaci</i> ," <i>J. Gen. Microbiol.</i> 137:2525-2530, SGM (1991)	
	NPL45	DOERKS, T., <i>et al.</i> , "Protein annotation: detective work for function prediction," <i>Trends Genet.</i> 14:248-250, Elsevier Trends Journals (June 1998)	
	NPL46	GRIFFITHS, P.C., <i>et al.</i> , "Epizootic bovine abortion in a dairy herd: characterization of a <i>Chlamydia psittaci</i> isolate and antibody response," <i>Br. Vet. J.</i> 151:683-693, Bailliere Tindall (1995)	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.
This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				Complete if Known	
FOURTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)				Application Number	10/766,711
				Filing Date	January 27, 2004
				First Named Inventor	JACKSON, W. James
				Art Unit	1645
				Examiner Name	BASKAR, Padmavathi
Sheet	2	of	4	Attorney Docket Number	2479.0040003/EJH/C-K

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T ²
	NPL47	HERBERT, <i>The Dictionary of Immunol.</i> , 3 rd Ed., Academic Press, London, pp. 58-59 (1985)	
	NPL48	HUTCHINSON, C.A., <i>et al.</i> , "Mutagenesis at a Specific Position in a DNA Sequence," <i>J. Biol. Chem.</i> 253:6551-6560, The American Society of Biological Chemists, Inc. (1978)	
	NPL49	JENKINS, F.J., "Basic Methods for the Detection of PCR Products," <i>PCR Methods and Apps. Manual Supplement</i> , pp. S77-S82, Cold Spring Harbor Laboratory (1994)	
	NPL50	JI, Y., <i>et al.</i> , "Intranasal Immunization with C5a Peptidase Prevents Nasopharyngeal Colonization of Mice by the Group A <i>Streptococcus</i> ," <i>Infect. Immun.</i> 65:2080-2087, American Society for Microbiology (1997)	
	NPL51	JOBLING, M.G., and HOLMES, R.K., "Analysis of structure and function of the B subunit of cholera toxin by the use of site-directed mutagenesis," <i>Mol. Microbiol.</i> 5:1755-1767, Blackwell Scientific Publications (1991)	
	NPL52	KALMAN, S., <i>et al.</i> , "Comparative genomes of <i>Chlamydia pneumoniae</i> and <i>C. trachomatis</i> ," <i>Nat. Genet.</i> 21:385-389 (April 1999)	
	NPL53	KRIEG, A.M., "Therapeutic potential of Toll-like receptor 9 activation," <i>Nat. Rev. Drug Discov.</i> 5:471-484, Nature Publishing Group (June 2006)	
	NPL54	LAZAR, E., <i>et al.</i> , "Transforming Growth Factor α : Mutation of Aspartic Acid 47 and Leucine 48 Results in Different Biological Activities," <i>Mol. Cell. Biol.</i> 8:1247-1252, American Society for Microbiology (1988)	
	NPL55	MYGIND, P.H., <i>et al.</i> , "Membrane proteins PmpG and PmpH are major constituents of <i>Chlamydia trachomatis</i> L2 outer membrane complex," <i>FEMS Microbiol. Lett.</i> 186:163-169, Blackwell Publisher (May 2000)	
	NPL56	NGO, J.T., <i>et al.</i> , in <i>The Protein Folding Problem and Tertiary Structure Prediction</i> , Merz, <i>et al.</i> , eds., Birkhauser, Boston, MA, pp. 492-495 (1994)	

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO FOURTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Complete if Known	
				Application Number	10/766,711
				Filing Date	January 27, 2004
				First Named Inventor	JACKSON, W. James
				Art Unit	1645
				Examiner Name	BASKAR, Padmavathi
Sheet	3	of	4	Attorney Docket Number	2479.0040003/EJH/C-K

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T ²	
	NPL57	PEIPERT, J.F., "Genital Chlamydial Infections," <i>N. Engl. J. Med.</i> 349:2424-2430, Massachusetts Medical Society (December 2003)		
	NPL58	RANK, R.G., "Animal Models for Urogenital Infections," in <i>Methods in Enzymology Volume 235, Bacterial Pathogenesis Part A—Identification and Regulation of Virulence Factors</i> , Clark, V.L., and Bavoil, P.M., eds., Academic Press, New York, NY, pp. 83-93 (1994)		
	NPL59	RUDINGER, J., "Characteristics of the amino acids as components of a peptide hormone sequence," in <i>Peptide Hormones</i> , Parsons, J.A., ed., University Park Press, Baltimore, MD, pp. 1-6 (1976)		
	NPL60	SCOPES, R.K., "Overview of Protein Purification and Characterization," in <i>Current Protocols in Protein Science</i> , Taylor, G., ed., John Wiley & Sons, Inc., pp. 1.1.1-1.1.6 (1995)		
	NPL61	SHAW, A.C., <i>et al.</i> , "Comparative proteome analysis of <i>Chlamydia trachomatis</i> serovar A, D and L2," <i>Proteomics</i> 2:164-186, Wiley-VCH Verlag GmbH (February 2002)		
	NPL62	SKOLNICK, J., and FETROW, J.S., "From genes to protein structure and function: novel applications of computational approaches in the genomic era," <i>Trends Biotechnol.</i> 18:34-39, Elsevier Science Publishers (January 2000)		
	NPL63	SMITH, "Anal of Pro," in <i>Short Protocols in Mol. Biol.</i> , Ausubel, F.M., ed., John Wiley & Sons, Inc., pp. 10-1 to 10-4 (1997)		
	NPL64	SMITH, T.X., and ZHANG, X., "The challenges of genome sequence annotation or "the devil is in the details," <i>Nature Biotechnol.</i> 15:1222-1223, Nature America Publishing (November 1997)		
	NPL65	STEPHENS, R.S., <i>et al.</i> , "Genome Sequence of an Obligate Intracellular Pathogen of Humans: <i>Chlamydia trachomatis</i> " <i>Science</i> 282:754-759, American Association for the Advancement of Science (1998)		
	NPL66	SU, H., <i>et al.</i> , "Protective efficacy of a parenterally administered MOMP-derived synthetic oligopeptide vaccine in a murine model of <i>Chlamydia trachomatis</i> genital tract infection: serum neutralizing IgG antibodies do not protect against chlamydial genital tract infection," <i>Vaccine</i> 13:1023-1032, Elsevier Science Ltd. (1995)		

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO				Complete if Known	
FOURTH SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				Application Number	10/766,711
				Filing Date	January 27, 2004
				First Named Inventor	JACKSON, W. James
				Art Unit	1645
				Examiner Name	BASKAR, Padmavathi
Sheet	4	of	4	Attorney Docket Number	2479.0040003/EJH/C-K

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume number, publisher, city and/or country where published	T ²
	NPL67	TANZER, R.J., and HATCH, T.P., "Characterization of Outer Membrane Proteins in <i>Chlamydia trachomatis</i> LGV Serovare L2," <i>J. Bacteriol.</i> 183:2686-2690, American Society for Microbiology (April 2001)	
	NPL68	TUFFREY, M., <i>et al.</i> , "Heterotypic protection of mice against chlamydial salpingitis and colonization of the lower genital tract with a human serovar F isolate of <i>Chlamydia trachomatis</i> by prior immunization with recombinant serovar L1 major outer-membrane protein," <i>J. Gen. Microbiol.</i> 138:1707-1715, Society For General Microbiology (1992)	
	NPL69	Webster's New World, Third, pp. 675 and 1472 (1988)	
	NPL70	WELLS, J.A., "Additivity of mutational effects in proteins," <i>Biochemistry</i> 29:8509-8517, American Chemical Society (1990)	
	NPL71	ATCC Accession No. VR-902B, " <i>Chlamydia trachomatis</i> (Busacca) Rake, Lymphogranuloma enereum (LGV II) strain 434"	
	NPL72	NCBI Entrez, GenBank Report, Accession No. ABB22785, Halse, T.A., <i>et al.</i> (first entered October 2005, last revised August 2006)	
	NPL73	NCBI Entrez, GenBank Report, Accession No. AAP05029, Read, T.D. (first entered April 2003, last revised December 2005)	
	NPL74	Co-pending and commonly-owned U.S. Patent Application No. 09/677,752, inventor W. James Jackson, filed on October 2, 2000 (NOT PUBLISHED)	
	NPL75	Co-pending and commonly-owned U.S. Patent Application No. 11/781,203, inventor W. James Jackson, filed on July 20, 2007 (NOT PUBLISHED)	
	NPL76	Co-pending and commonly-owned U.S. Patent Application No. 11/781,199, inventor W. James Jackson, filed on July 20, 2007 (NOT PUBLISHED)	

733642_1

Examiner Signature		Date Considered	
--------------------	--	-----------------	--

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.